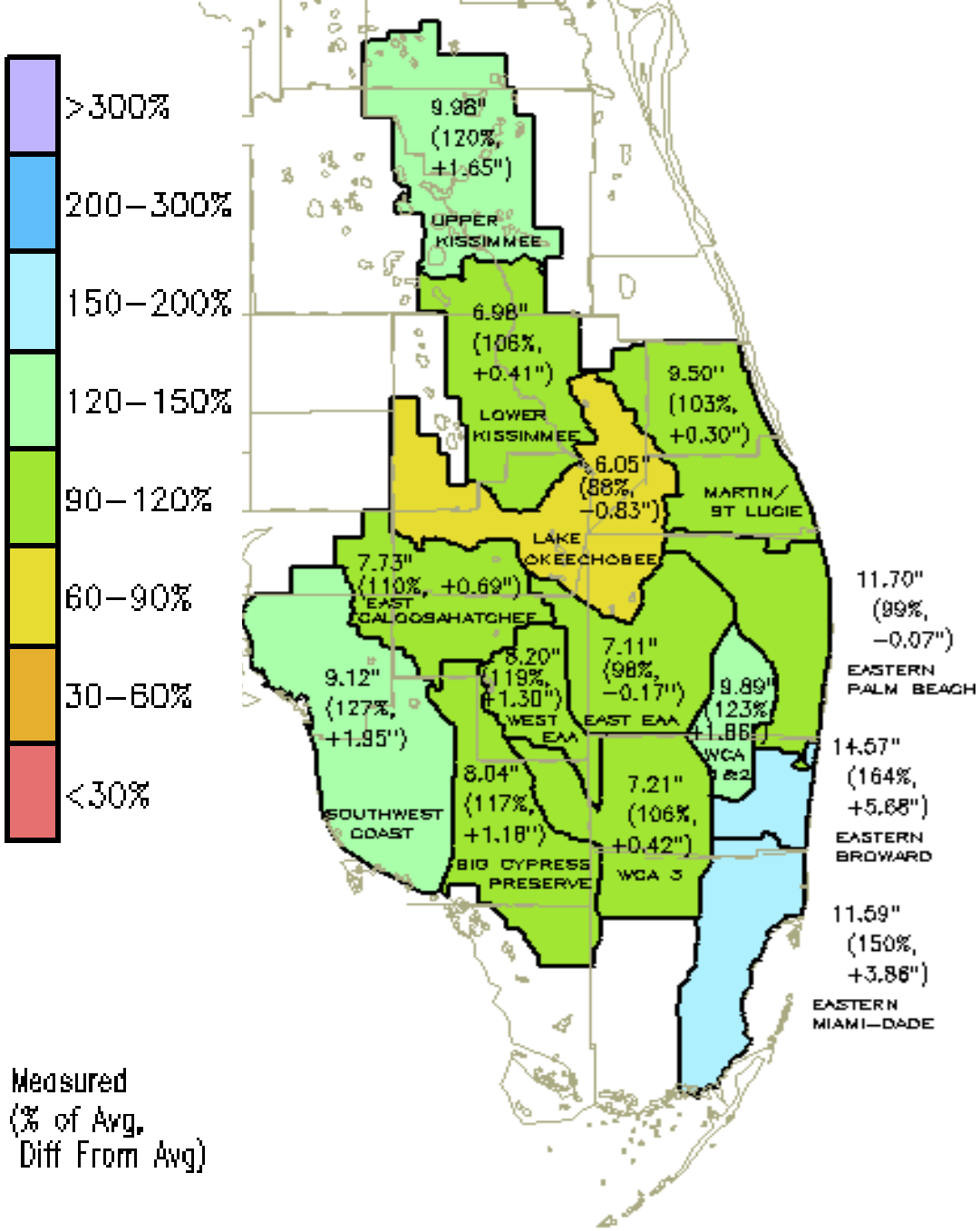
Water Conditions Summary

Feb 11, 2010

Susan B. Sylvester, Department Director
Operations Control & Hydro Data Management Department
South Florida Water Management District

SFWMD 2010
Dry Season Rainfall
Through Feb 10

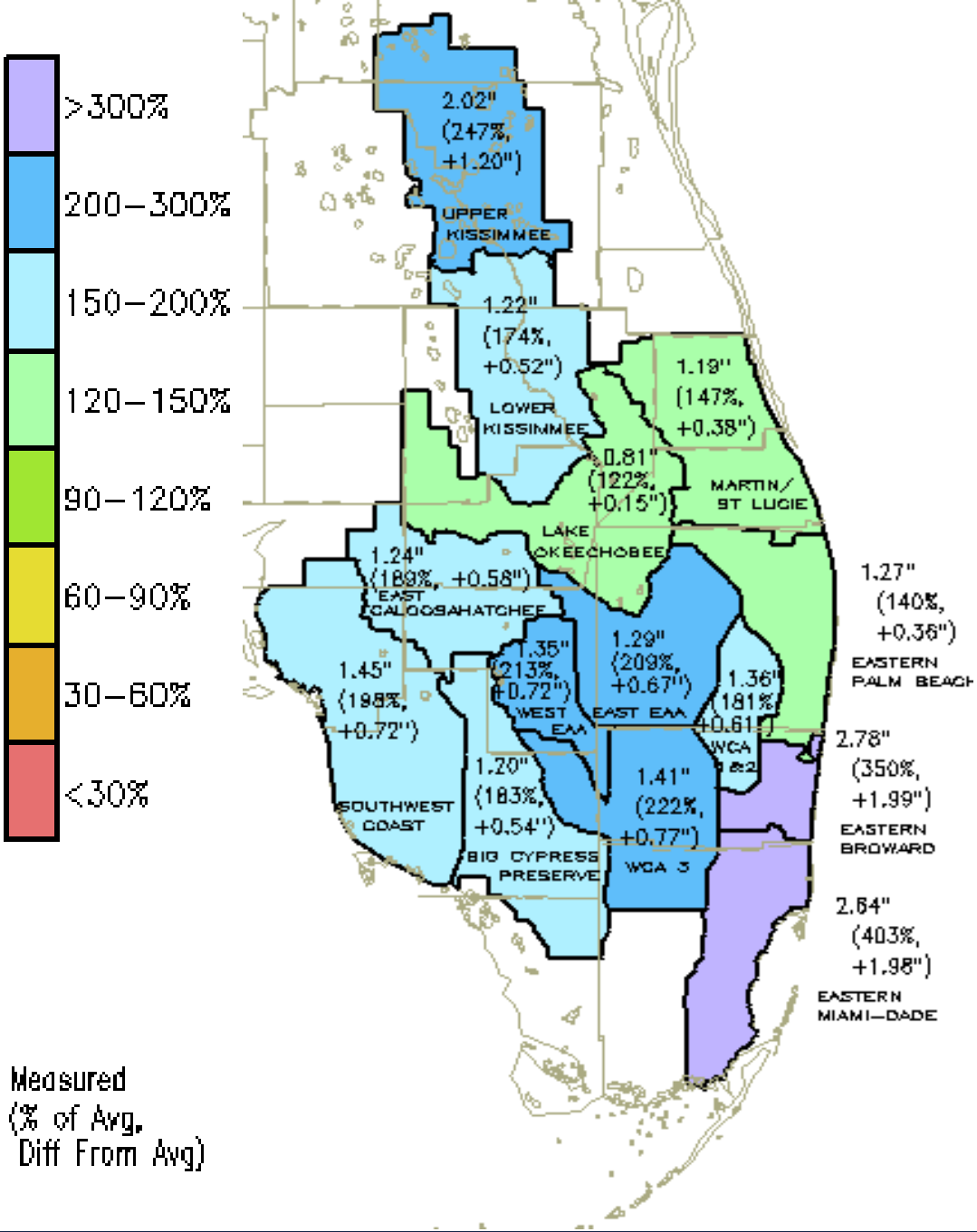
DISTRICT-WIDE:
8.62” (113%, + 1.02”)



- *Most basins received nearly normal dry season rainfall*
- *Eastern Broward received 1.6 times normal dry season rainfall*
- *Eastern Miami Dade received 1.5 times normal dry season rainfall*

SFWMD 2010
February Rainfall
Through Feb 10

DISTRICT-WIDE:
1.43” (203%, + 0.73”)



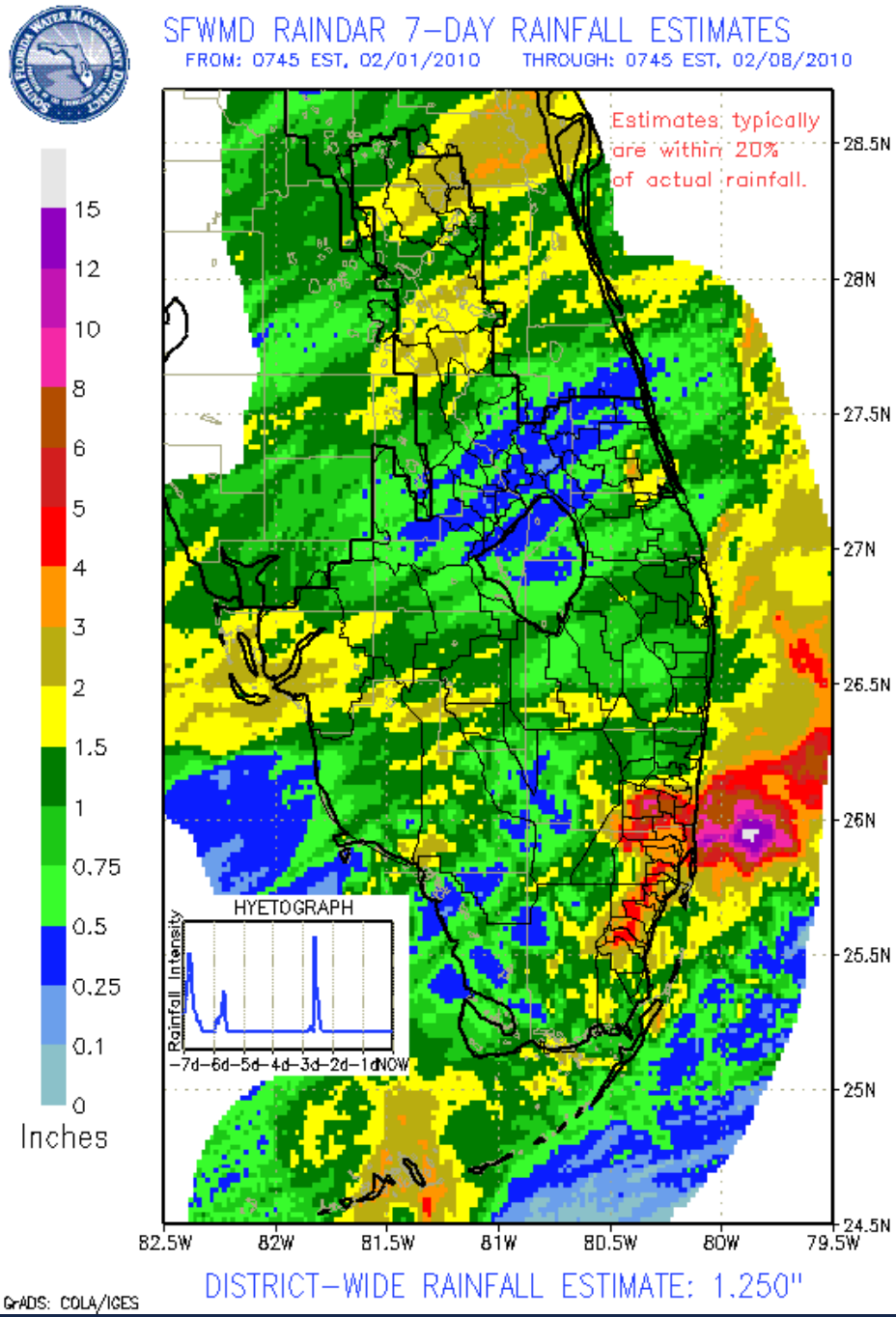
- *All basins received above normal dry season rainfall*
- *Eastern Broward received 3.5 times normal dry season rainfall*
- *Eastern Miami Dade received 2 times normal dry season rainfall*

Rainfall event February 1-3

District received about 1.25”

Heaviest rains:

- **Southern Broward Co**
- **Northern Miami-Dade Co**
- **Western Caloosahatchee Basin**
- **Upper Kissimmee Basin**



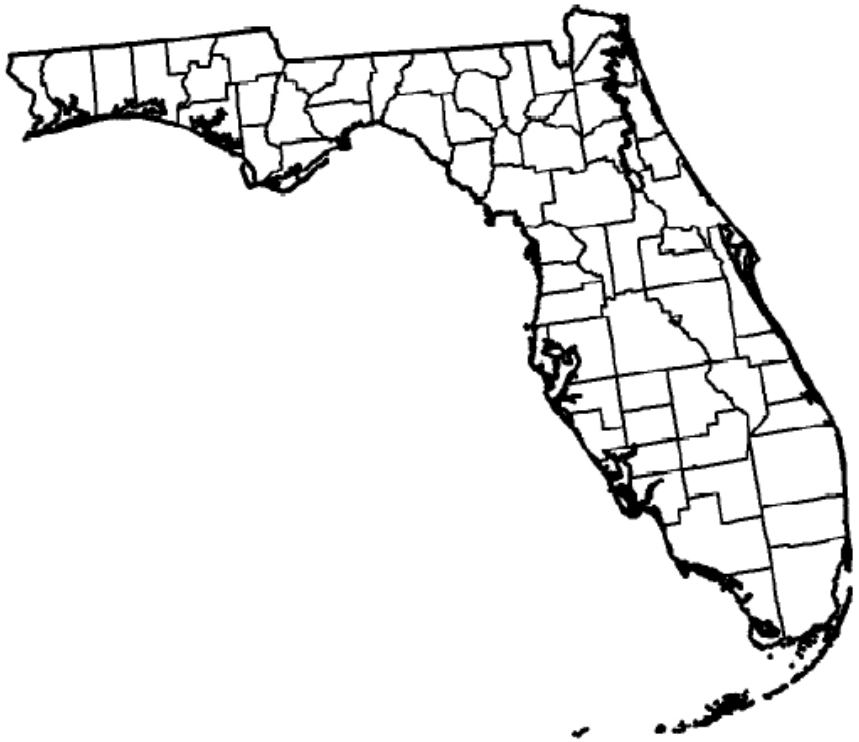
U.S. Drought Monitor

Florida

February 2, 2010
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.0	0.0	0.0	0.0	0.0	0.0
Last Week (01/26/2010 map)	100.0	0.0	0.0	0.0	0.0	0.0
3 Months Ago (11/10/2009 map)	62.4	37.6	0.0	0.0	0.0	0.0
Start of Calendar Year (01/05/2010 map)	97.3	2.7	0.0	0.0	0.0	0.0
Start of Water Year (10/06/2009 map)	100.0	0.0	0.0	0.0	0.0	0.0
One Year Ago (02/03/2009 map)	34.0	66.0	15.7	0.0	0.0	0.0



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://drought.unl.edu/dm

USDA National Drought Mitigation Center

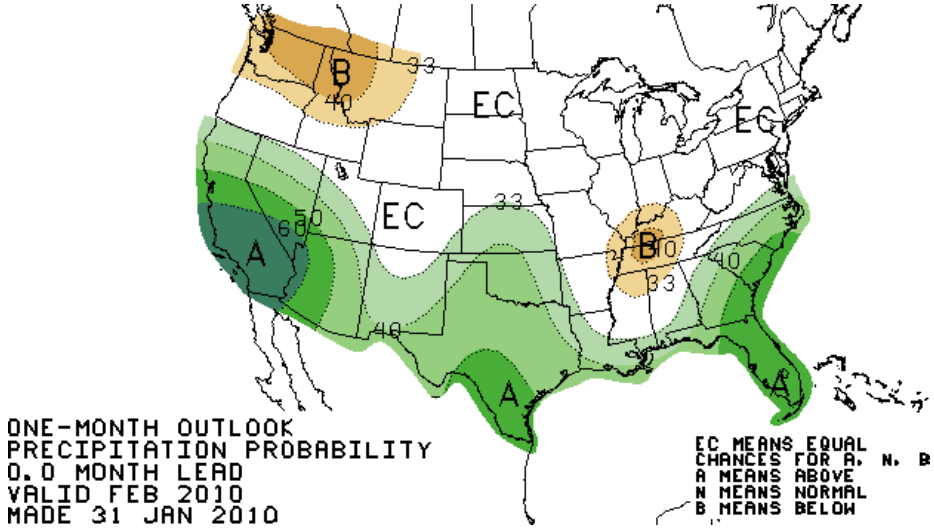
Released Thursday, February 4, 2010

Author: M. Rosencrans, CPC/NOAA

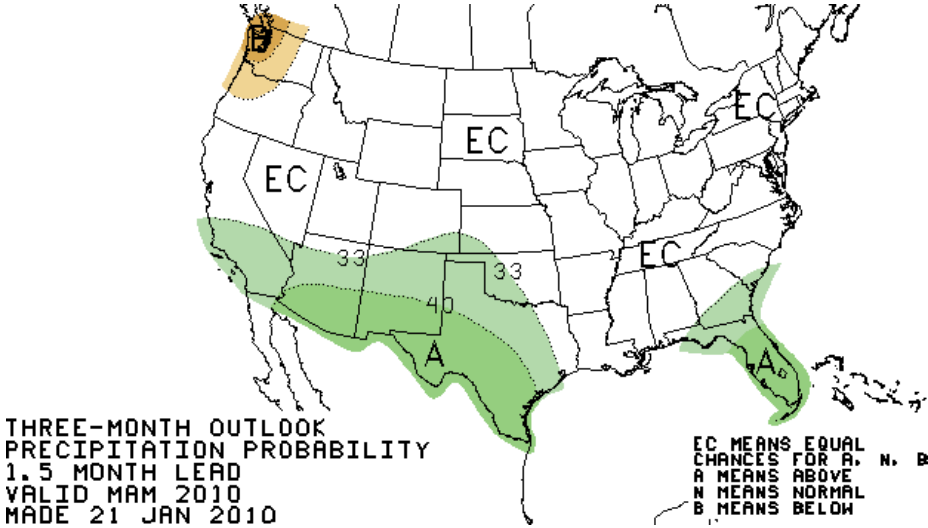
U. S. Seasonal Precipitation Outlook

National Climate Prediction Center (CPC)

Feb



Mar-May



- The CPC forecasts moderate-strength El Nino conditions to persist into the 2010 winter. A strong event is unlikely, but El Nino impacts are expected in the next few months. (CPC outlook 21-Jan-2009)
- The outlook for Feb shows an increased chance of above-normal (A) rainfall for central and south Florida (>50%).
- The outlook for Mar-May shows increased chances of above-normal (A) rainfall for central (44%) and south (44%) Florida (same as Jan CPC forecast)

  (Note: If there are no increased chances, the probability of above-normal is 33%)

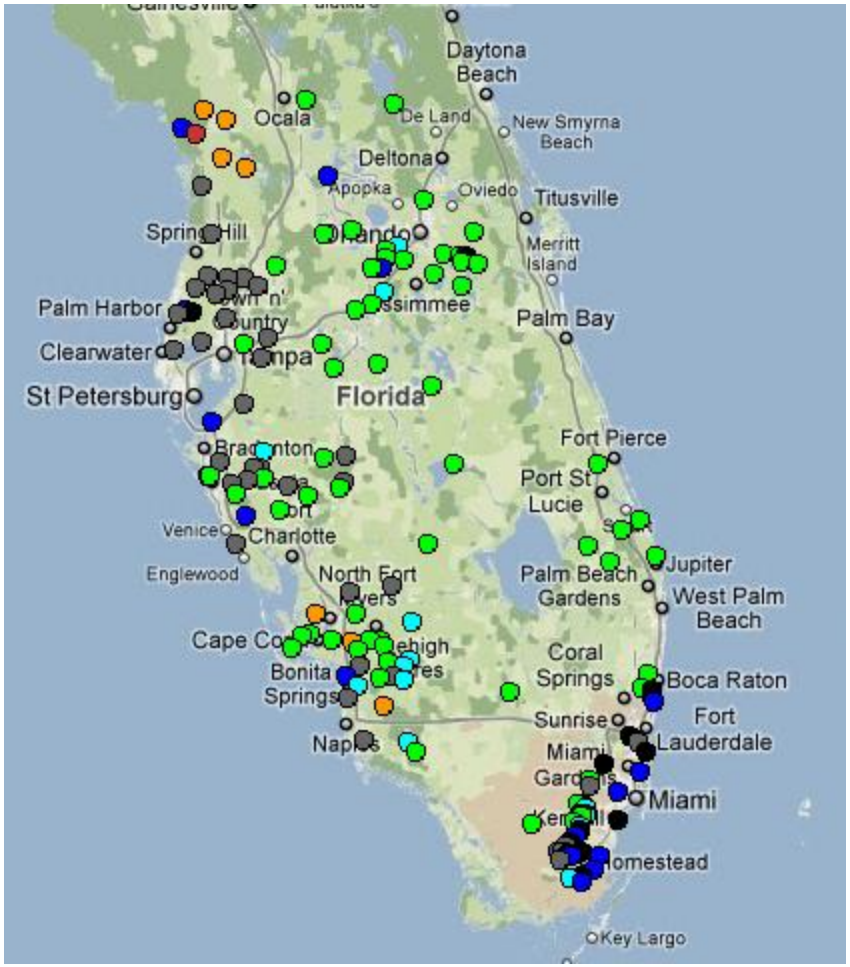
Groundwater Levels

Most wells along the lower east coast are mostly either above normal or much above normal

Wells in Upper East Coast are in the normal range

Wells in Kissimmee Basin are also in Normal range

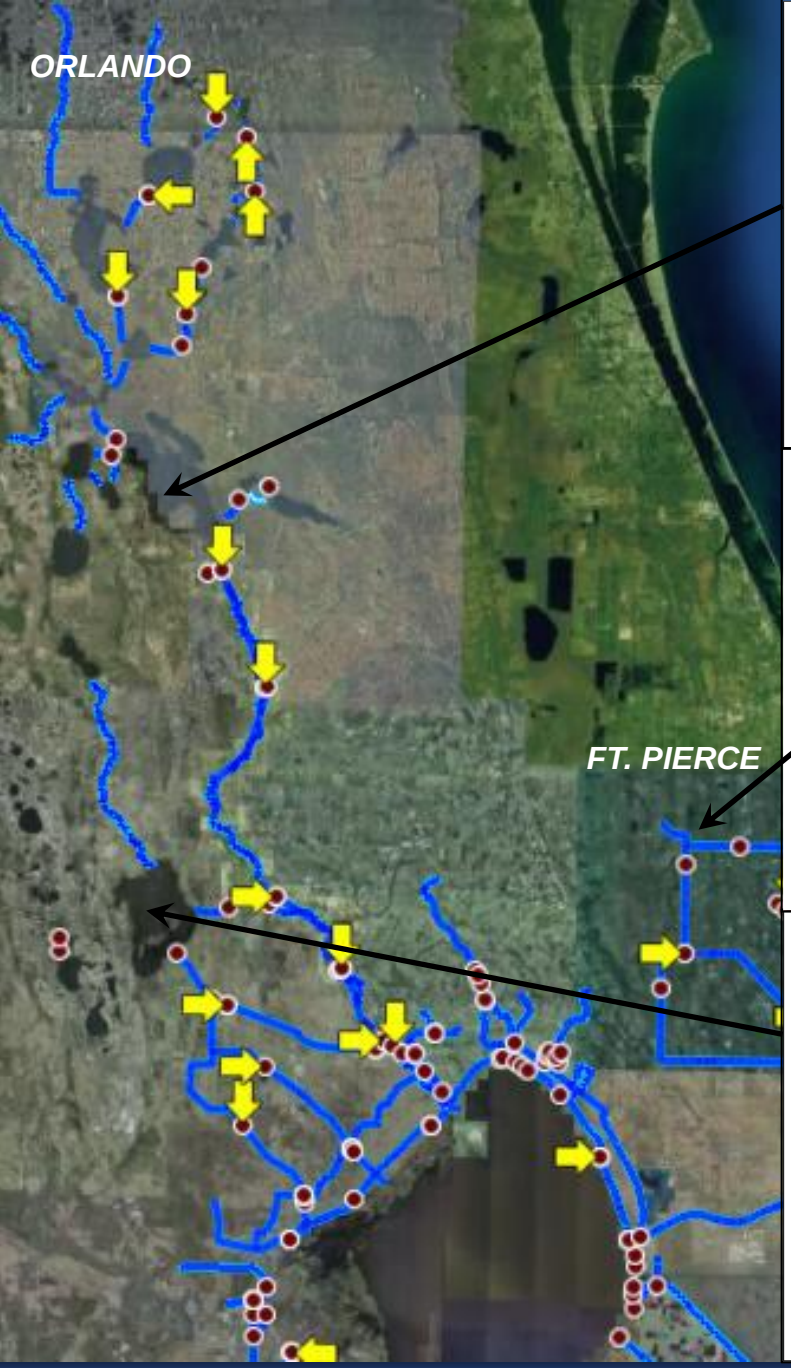
Wells along the West Coast are mostly normal with few below or above normal

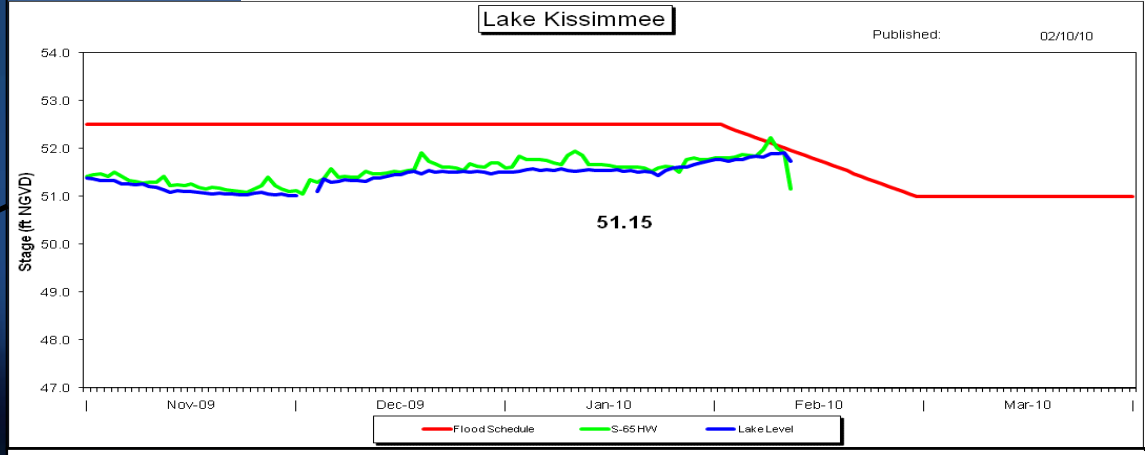


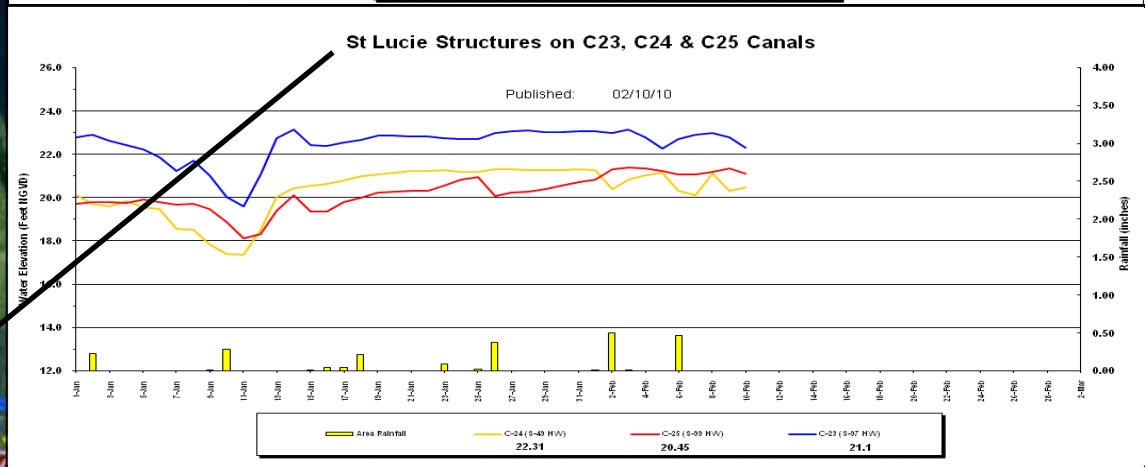
As of February 05, 2010

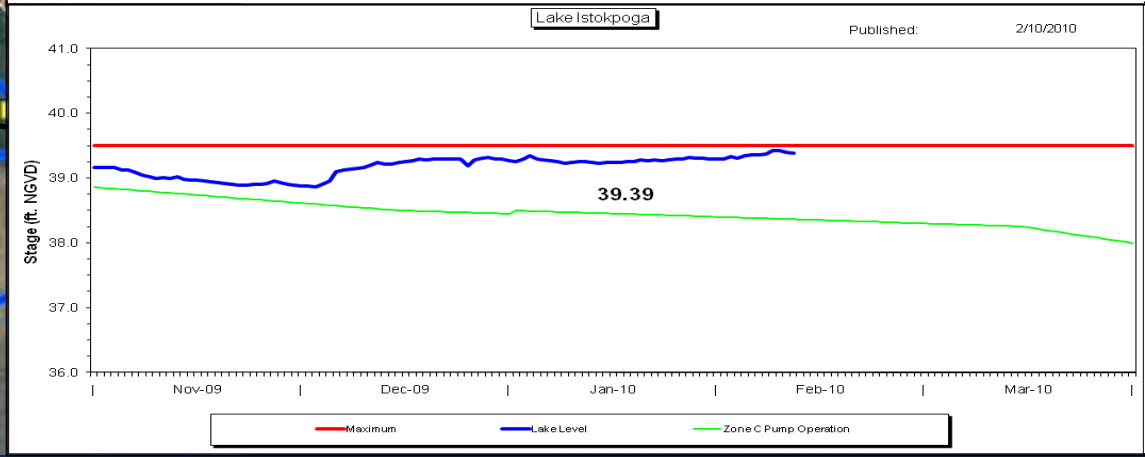
Explanation - Percentile classes (symbol color based on most recent measurement)

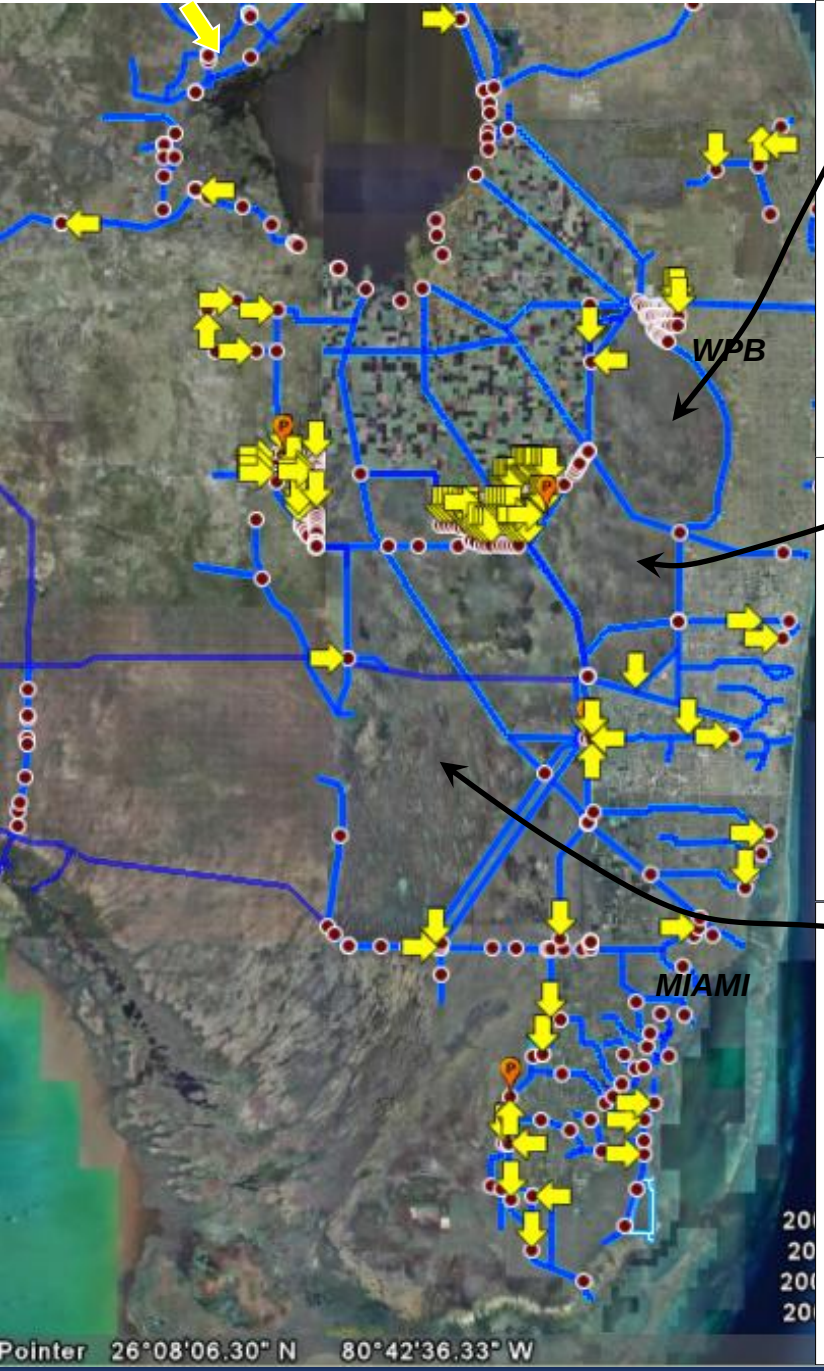
New Low	<10	10-24	25-75	76-90	>90	New High	Not Ranked
	Much Below Normal	Below Normal	Normal	Above Normal	Much Above Normal		

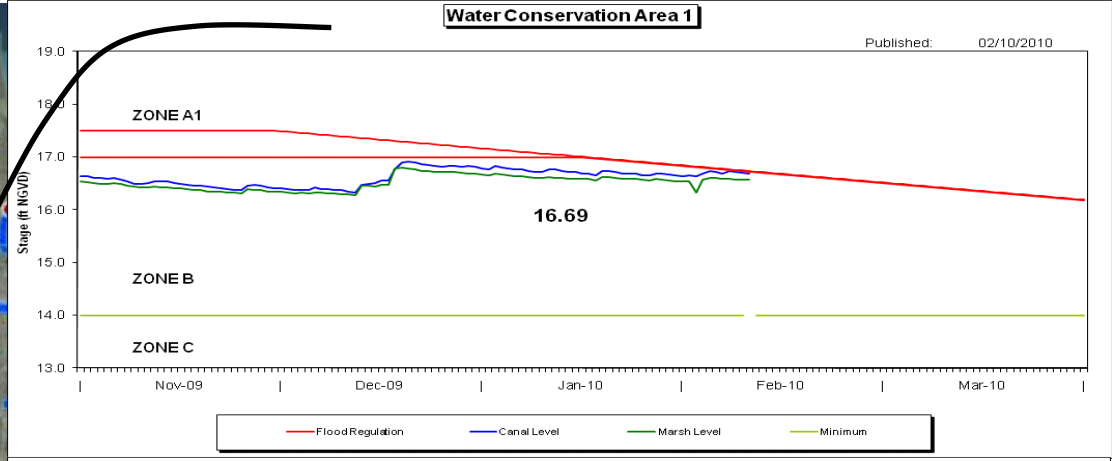

ORLANDO
FT. PIERCE

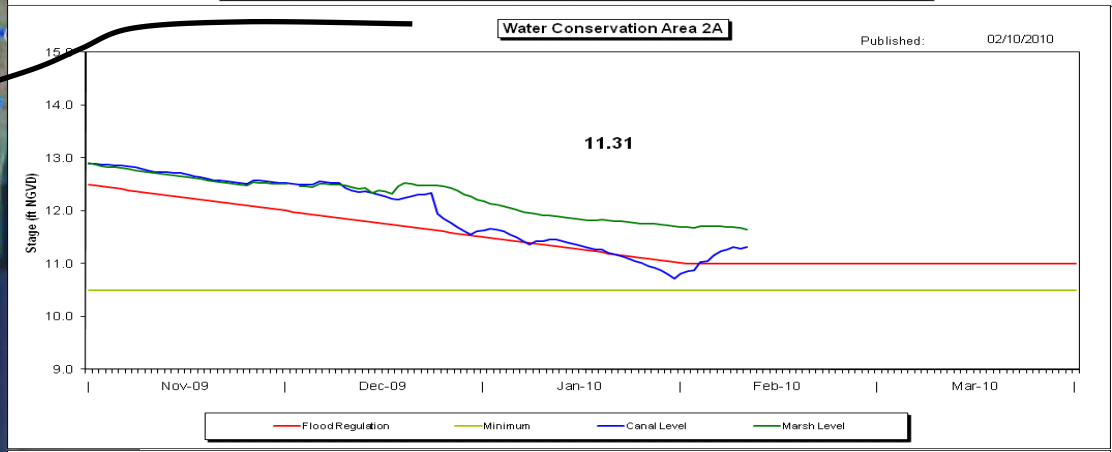

Lake Kissimmee
Published: 02/10/10
Stage (ft NGVD)
54.0
53.0
52.0
51.0
50.0
49.0
48.0
47.0
51.15
Nov-09
Dec-09
Jan-10
Feb-10
Mar-10
Flood Schedule
S-65 HW
Lake Level

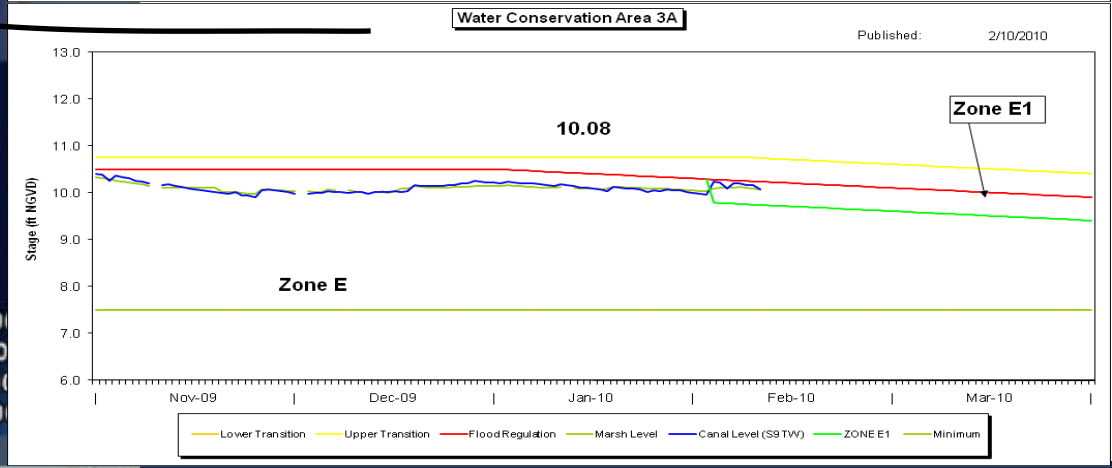

St Lucie Structures on C23, C24 & C25 Canals
Published: 02/10/10
Water Elevation (Feet NGVD)
Rainfall (inches)
Area Rainfall
C-24 (S-49 HW)
22.31
C-25 (S-99 HW)
20.45
C-23 (S-97 HW)
21.1

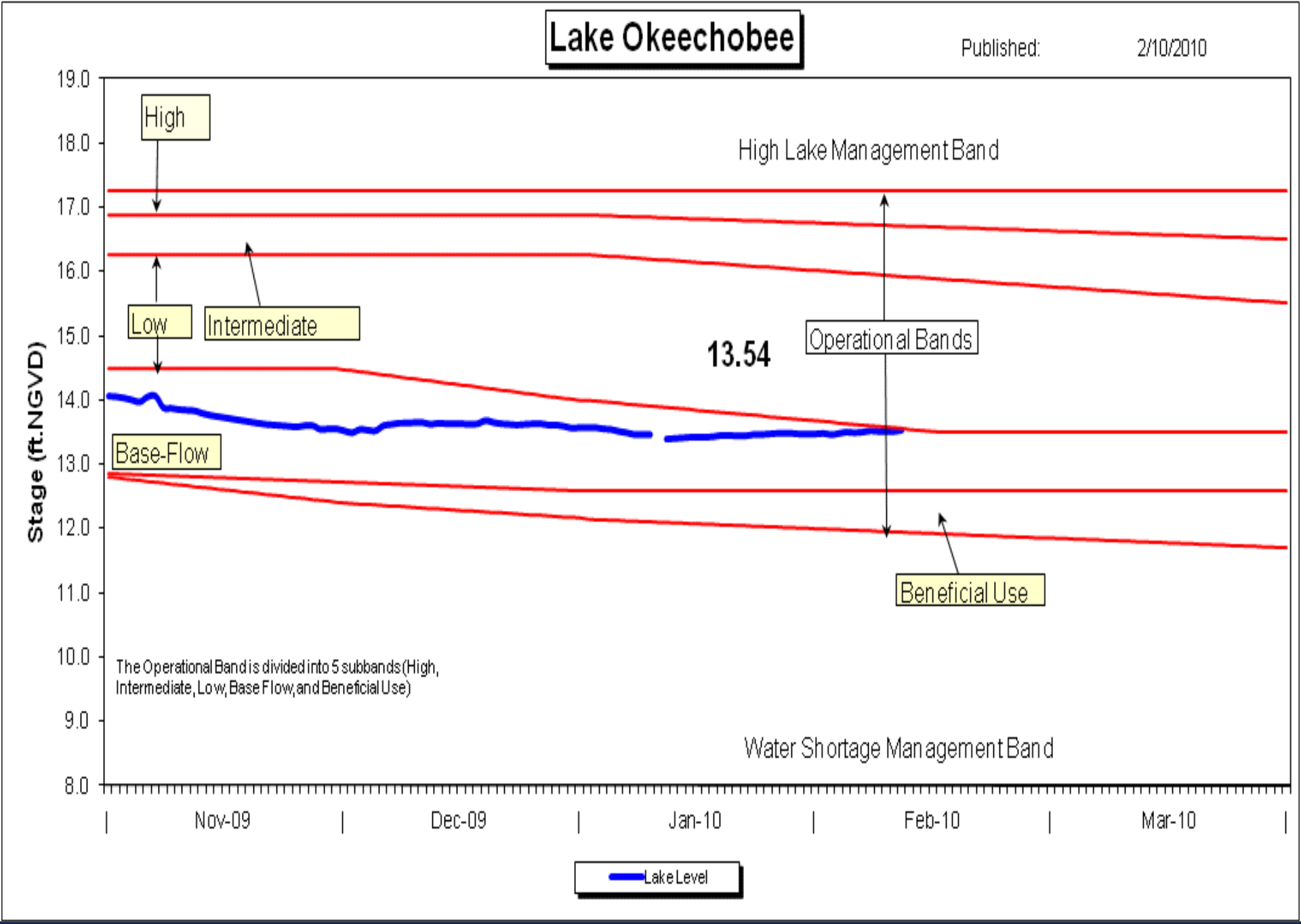

Lake Istokpoga
Published: 2/10/2010
Stage (ft. NGVD)
41.0
40.0
39.0
38.0
37.0
36.0
39.39
Nov-09
Dec-09
Jan-10
Feb-10
Mar-10
Maximum
Lake Level
Zone C Pump Operation


WPB
MIAMI
Pointer 26°08'06.30" N 80°42'36.33" W


Water Conservation Area 1
Published: 02/10/2010
ZONE A1
16.69
ZONE B
ZONE C
Stage (ft NGVD)
19.0
17.0
16.0
15.0
14.0
13.0
Nov-09
Dec-09
Jan-10
Feb-10
Mar-10
Flood Regulation
Canal Level
Marsh Level
Minimum


Water Conservation Area 2A
Published: 02/10/2010
11.31
Stage (ft NGVD)
14.0
13.0
12.0
11.0
10.0
9.0
Nov-09
Dec-09
Jan-10
Feb-10
Mar-10
Flood Regulation
Minimum
Canal Level
Marsh Level

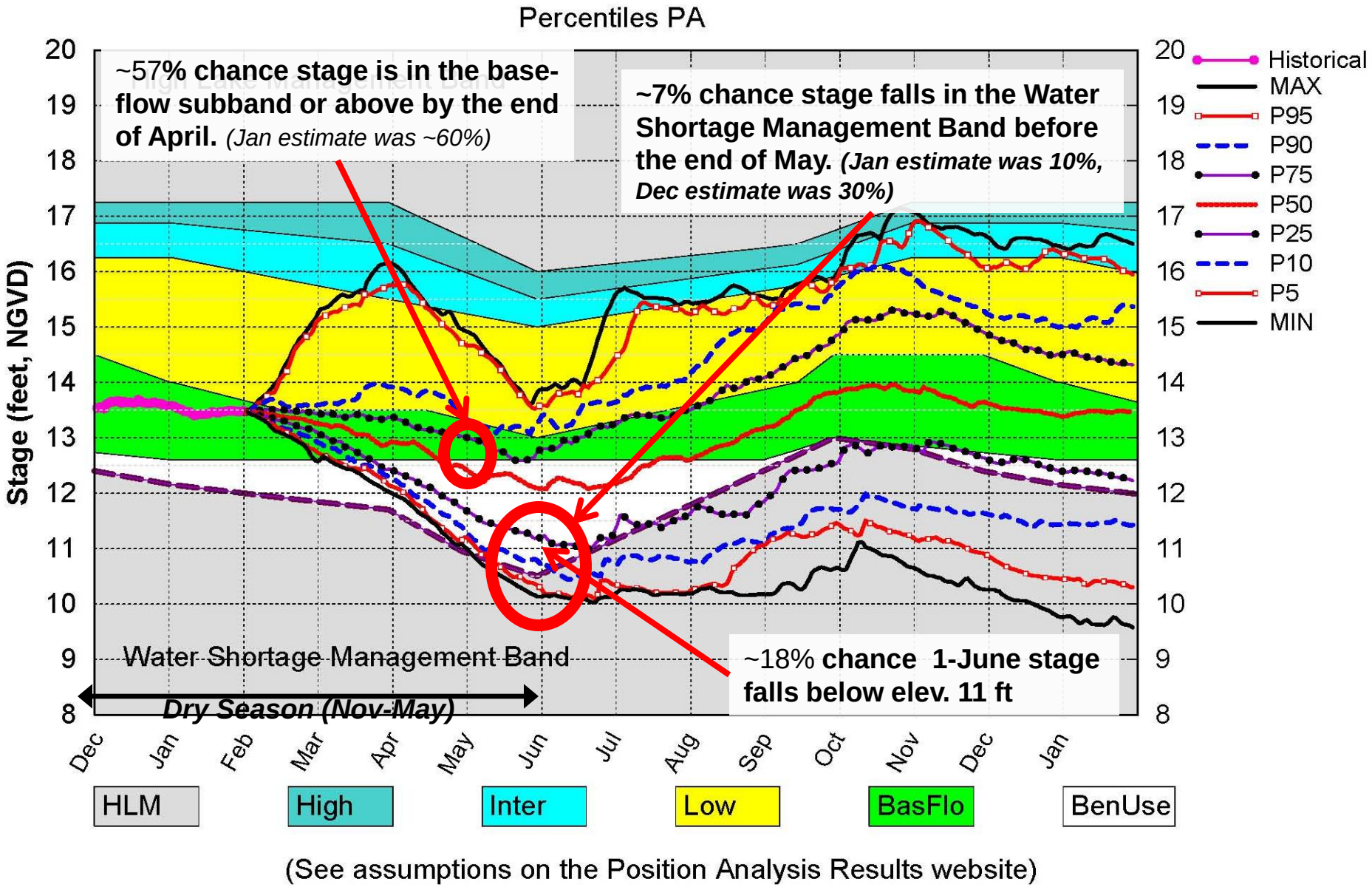

Water Conservation Area 3A
Published: 2/10/2010
10.08
Zone E1
Zone E
Stage (ft NGVD)
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
Nov-09
Dec-09
Jan-10
Feb-10
Mar-10
Lower Transition
Upper Transition
Flood Regulation
Marsh Level
Canal Level (S9TW)
ZONE E1
Minimum


Lake Okeechobee
Published: 2/10/2010
Stage (ft.NGVD)
19.0
18.0
17.0
16.0
15.0
14.0
13.0
12.0
11.0
10.0
9.0
8.0
High
High Lake Management Band
Low
Intermediate
13.54
Operational Bands
Base-Flow
Beneficial Use
The Operational Band is divided into 5 subbands (High, Intermediate, Low, Base Flow, and Beneficial Use)
Water Shortage Management Band
Nov-09
Dec-09
Jan-10
Feb-10
Mar-10
Lake Level

Lake Okeechobee Stage Forecast

- **Future Lake stage depends on future rainfall**
- **Projections provided monthly by SFWMD Hydrologic and Environmental Systems Modeling (HESM) Department**
- **Position Analysis**
  - **Each year starts with current hydrologic conditions**
  - **41 1-yr simulations of system response to historical rainfall conditions**
  - **Statistical summaries used to display projections**

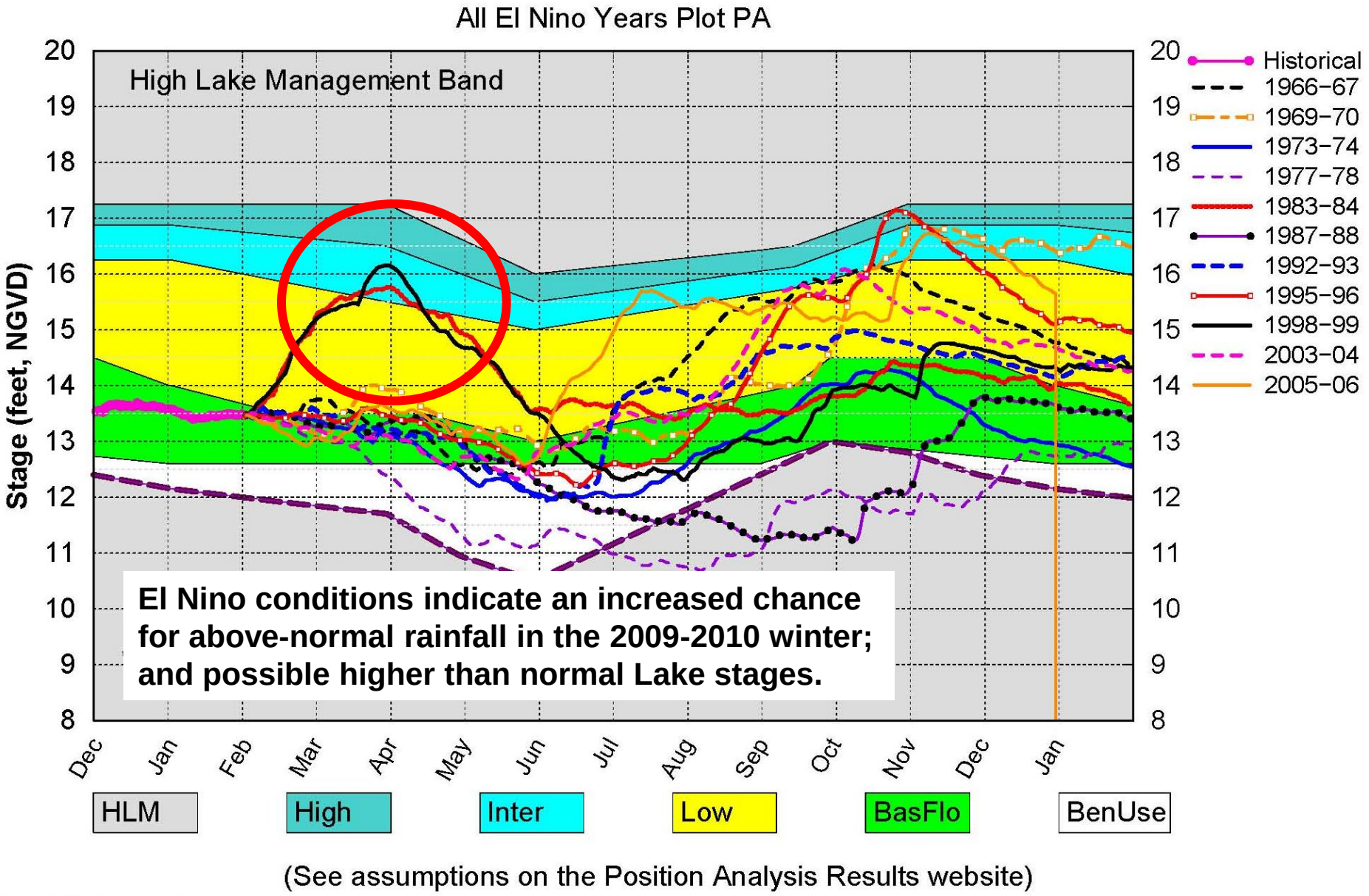
Lake Okeechobee SFWMM February 2010 Position Analysis



(See assumptions on the Position Analysis Results website)

Thu Feb 4 11:02:31 2010

Lake Okeechobee SFWMM February 2010 Position Analysis



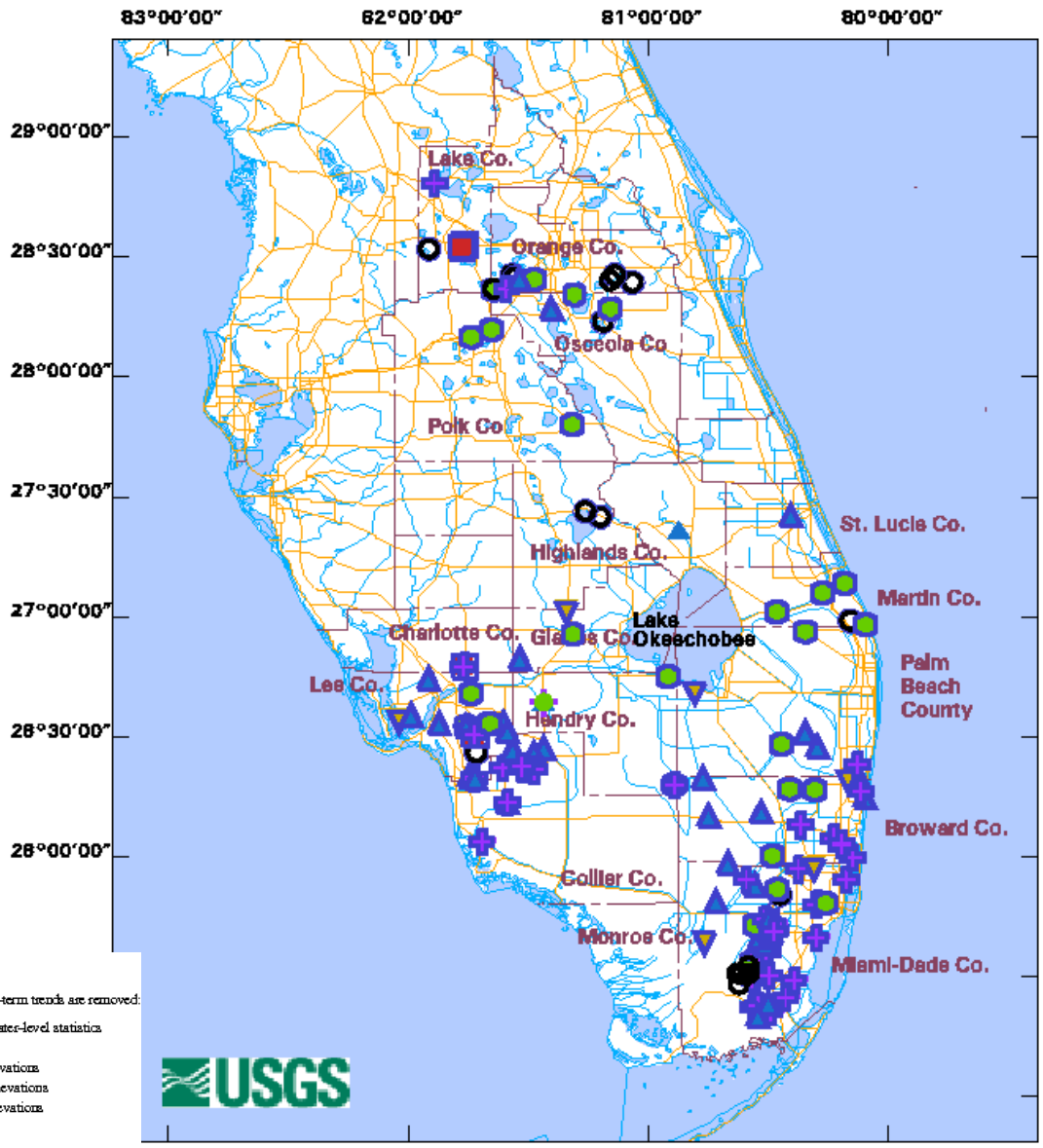
(See assumptions on the Position Analysis Results website)

Thu Feb 4 11:02:55 2010

- **District staff proposes to continue recommending to the U.S. Army Corps of Engineers potential releases of up to 450 cfs to the Caloosahatchee Estuary, in the form of a pulse release, based upon:**
  - **Demonstrated need of the ecosystem**
  - **Balancing water supply and flood protection**
  - **Lake stage is in the Base Flow subband of the Lake Okeechobee Regulation Schedule 2008**
- **Redirection of 200 cfs from the St. Lucie to the Caloosahatchee by the USACE for a total of 650 cfs is acceptable at this time**
- **It is also anticipated that the Lake will be in the low subband by next week, which may require increases in release volumes**


Questions?

PROVISIONAL DRAFT – Subject to Revision



Rivers and canals
Roads and highways
County boundaries
Telemetry site

Water level compared to historical data, after long-term trends are removed:

- Insufficient information available to compute water-level statistics
- In lowest 10 percent of past water elevations
- Within lowest 10 to 30 percent of past water elevations
- Within 20 percent of the median of past water elevations
- Within highest 10 to 30 percent of past water elevations
- In highest 10 percent of past water elevations

Water levels at selected sites in South Florida,
Based on PROVISIONAL DATA, as of February 8, 2010.